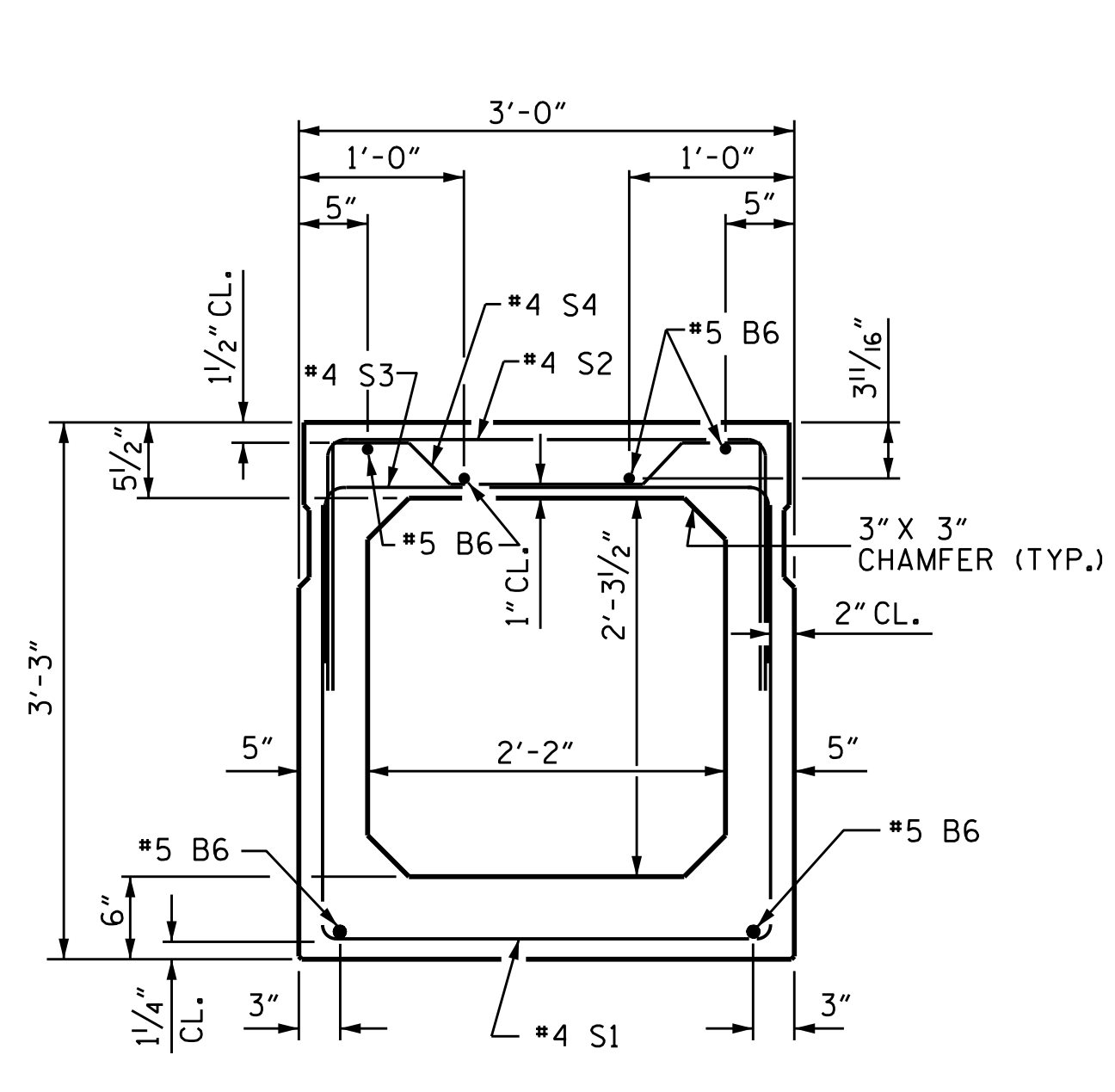


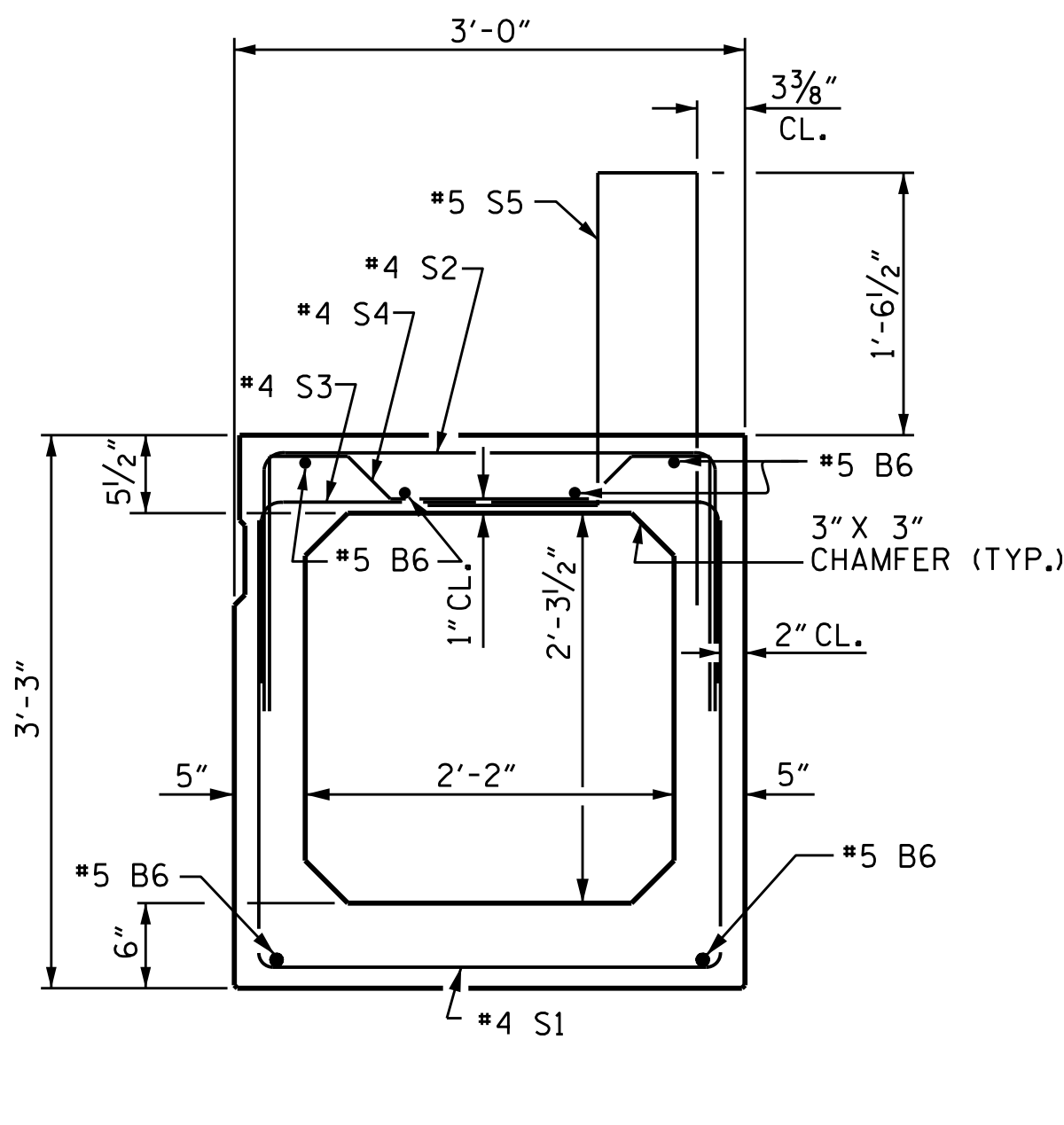
END ELEVATION

SHOWING PLACEMENT OF #5 & #4 "A" BARS AND LOCATION OF DOWEL HOLES. (INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION. STRAND LAYOUT NOT SHOWN.)



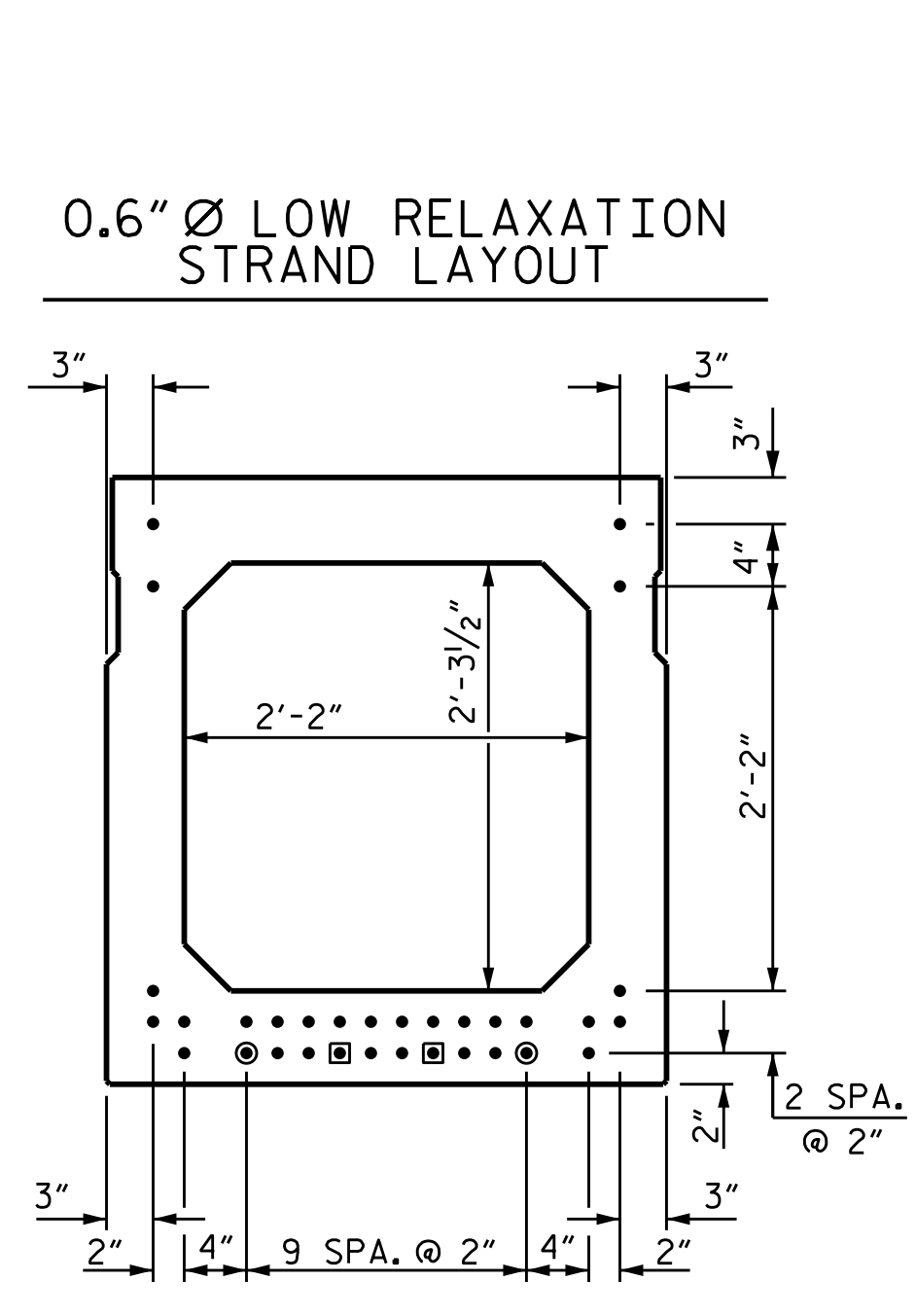
INTERIOR BOX BEAM SECTION

(STRAND LAYOUT NOT SHOWN)



EXTERIOR BOX BEAM SECTION

(STRAND LAYOUT NOT SHOWN)



TYPICAL STRAND LOCATION

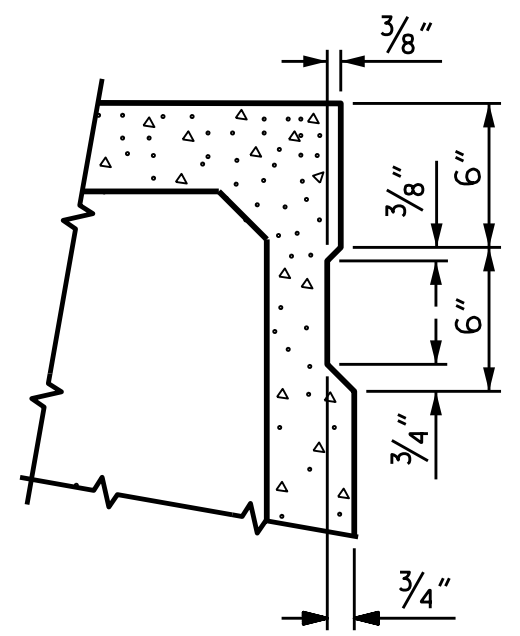
(32 STRANDS REQUIRED)

DEBONDING LEGEND

- FULLY BONDED STRANDS
- ◻ STRANDS DEBONDED FOR 4'-0" FROM END OF GIRDER
- STRANDS DEBONDED FOR 12'-0" FROM END OF GIRDER

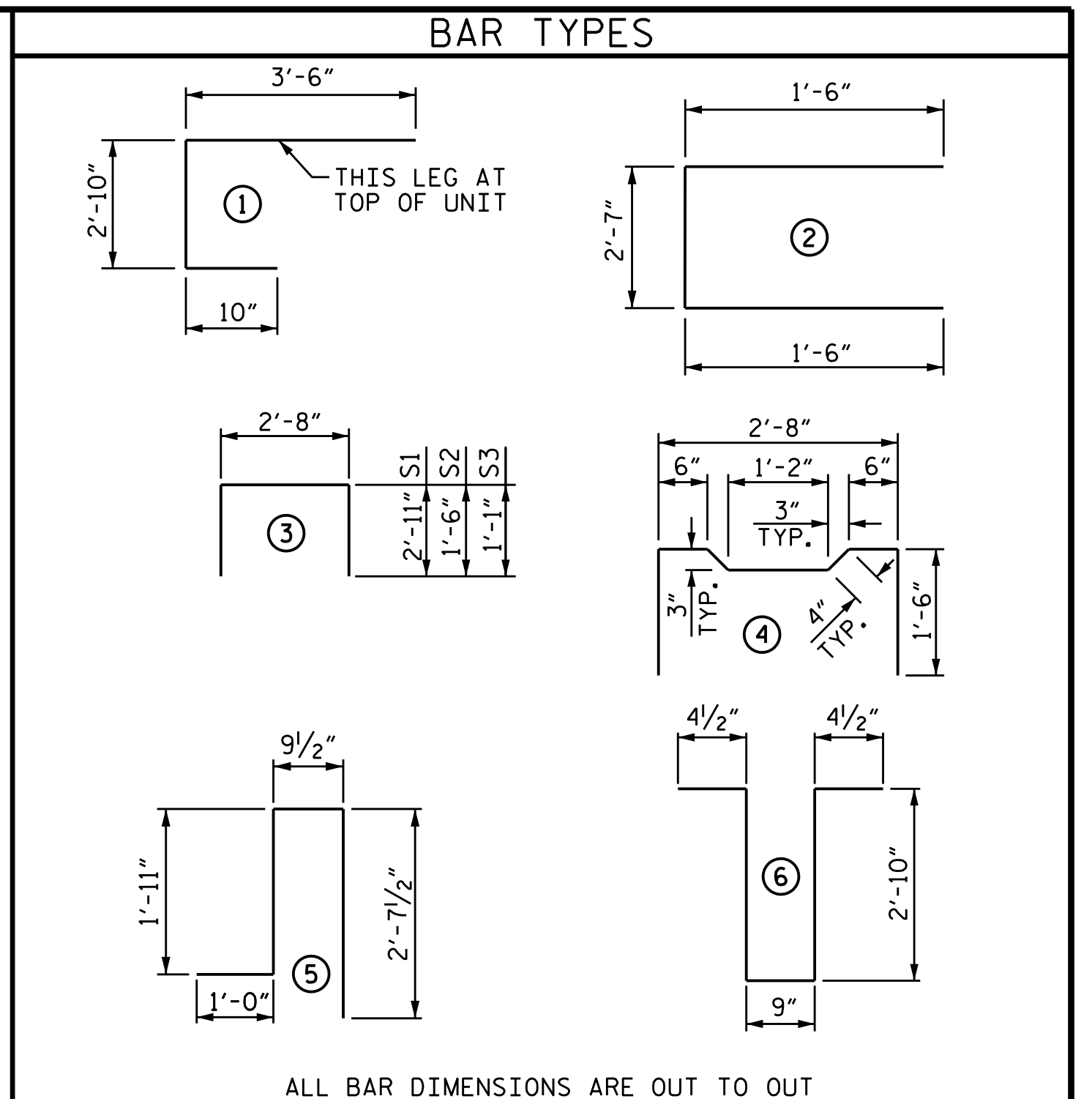
BOND SHALL BE BROKEN ON STRANDS AS SHOWN FOR THE SPECIFIED LENGTH FROM EACH END OF THE BOX BEAM. SEE STANDARD SPECIFICATIONS ARTICLE 1078-7.

GRADE 270 STRANDS	
0.6" Ø L.R.	
AREA (SQUARE INCHES)	0.217
ULTIMATE STRENGTH (LBS. PER STRAND)	58,600
APPLIED PRESTRESS (LBS. PER STRAND)	43,950



SHEAR KEY DETAIL

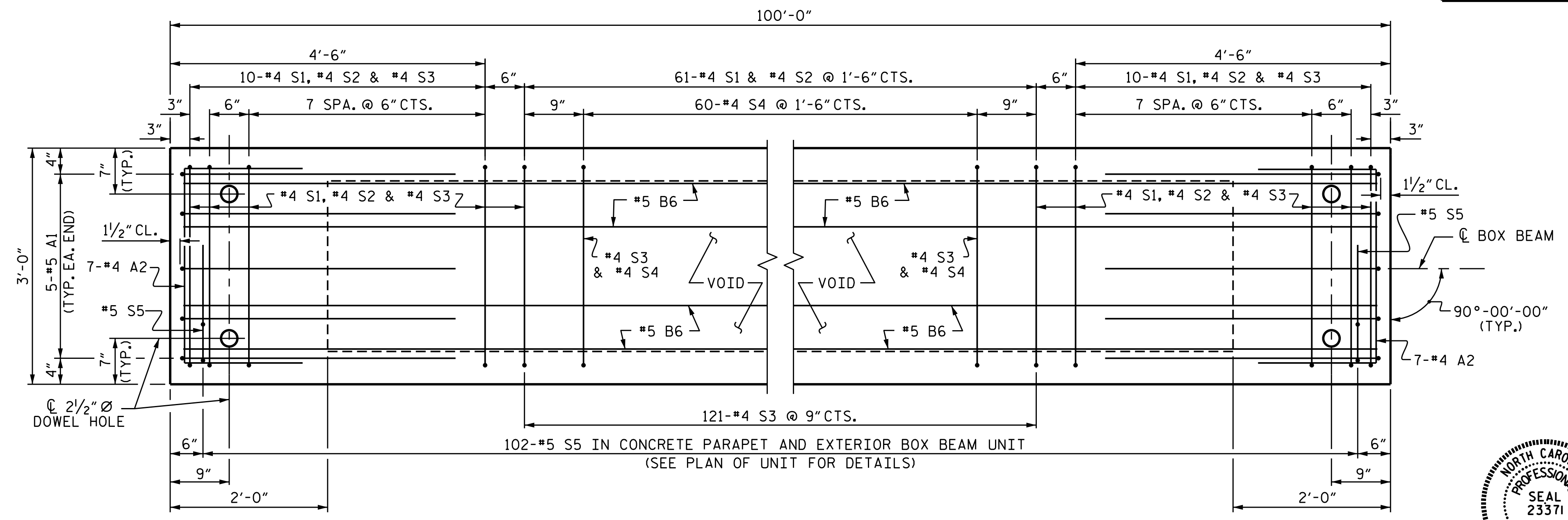
NOTE: OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR BOX BEAMS.



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL FOR ONE BOX BEAM SECTION

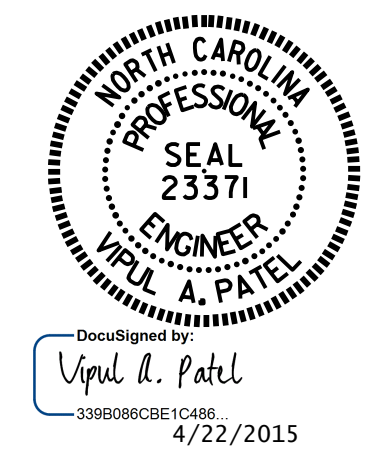
BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT		INTERIOR UNIT	
				LENGTH	WEIGHT	LENGTH	WEIGHT
A1	10	#5	1	7'-2"	75	7'-2"	75
A2	44	#4	2	5'-7"	164	5'-7"	164
B6	12	#5	STR	50'-11"	637	50'-11"	637
K1	15	#4	6	7'-2"	72	7'-2"	72
K2	10	#4	STR	2'-7"	17	2'-7"	17
S1	81	#4	3	8'-6"	460	8'-6"	460
S2	81	#4	3	5'-8"	307	5'-8"	307
S3	141	#4	3	4'-10"	455	4'-10"	455
S4	60	#4	4	5'-10"	234	5'-10"	234
*S5	102	#5	5	6'-4"	674	--	--
REINFORCING STEEL				LBS.	2,421	LBS.	2,421
* EPOXY COATED REINFORCING STEEL				LBS.	674		
7000 P.S.I. CONCRETE				CU. YDS.	19.6	CU. YDS.	19.4
0.6" Ø L.R. STRANDS				No.	32	No.	32



PLAN OF BOX BEAM

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S5 BARS. FOR LOCATION OF DIAPHRAGMS, SEE "PLAN OF UNIT". FOR THREADED INSERTS, SEE "THREADED INSERT DETAIL". FOR REINFORCING STEEL IN DIAPHRAGMS, SEE "DOUBLE DIAPHRAGM DETAILS".

PROJECT NO. B-4972
CABARRUS COUNTY
 STATION: 22+55.00 -L-
 SHEET 4 OF 7



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 3'-0" X 3'-3"
 PRESTRESSED CONCRETE
 BOX BEAM UNIT
 (SPANS A & B)

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					31

ASSEMBLED BY: J.P. MCCARTHA	DATE: 7-28-14		
CHECKED BY: M.E. GILES	DATE: 12-17-14		
DRAWN BY: TLA 5/05	REV. 5/1/06	TLA/GM	DESIGN ENGINEER OF RECORD:
CHECKED BY: GM 6/05	REV. 10/1/11	MAA/GM	J.P. MCCARTHA
	REV. 1/15	RWW/TMG	DATE: 12-17-14